

AMENDMENTS IN THE CLAIMS:

Please cancel claims 1-12 without prejudice or disclaimer of the material contained therein. Please add new claims 13-24. Therefore, claims 13-24 are currently pending.

Claim 13 (New): A substrate dividing method comprising the steps of:

irradiating a substrate with laser light while positioning a light-converging point within the substrate, so as to form a modified region due to multiphoton absorption within the substrate, and causing the modified region to form a starting point region for cutting along a line along which the substrate should be cut in the substrate inside by a predetermined distance from a laser light incident face of the substrate; and

grinding the substrate after the step of forming the starting point region for cutting such that the substrate attains a predetermined thickness.

Claim 14 (New): A substrate dividing method according to claim 13, wherein the substrate is a semiconductor substrate.

Claim 15 (New): A substrate dividing method according to claim 14, wherein the modified region is a molten processed region.

Claim 16 (New): A substrate dividing method according to claim 13, wherein the substrate is an insulating substrate.

Claim 17 (New): A substrate dividing method according to any one of claims 13-16, wherein a front face of the substrate is formed with a functional device; and wherein a rear face of the substrate is ground in the step of grinding the substrate.

Claim 18 (New): A substrate dividing method according to claim 17, wherein the step of grinding the substrate includes a step of subjecting the rear face of the substrate to chemical etching.

Claim 19 (New): A substrate dividing method comprising the steps of:
irradiating a substrate with laser light while positioning a light-converging point within the substrate under a condition with a peak power density of at least 1×10^8 (W/cm²) at the light-converging point and a pulse width of 1 μ s or less, so as to form a modified region including a crack region within the substrate, and causing the modified region to form a starting point region for cutting along a line along which the substrate should be cut in the substrate inside by a predetermined distance from a laser light incident face of the substrate; and
grinding the substrate after the step of forming the starting point region for cutting such that the substrate attains a predetermined thickness.

Claim 20 (New): A substrate dividing method comprising the steps of:
irradiating a substrate with laser light while positioning a light-converging point within the substrate under a condition with a peak power density of at least 1×10^8 (W/cm²) at the light-converging point and a pulse width of 1 μ s or less, so as to form a modified region including a

molten processed region within the substrate, and causing the modified region to form a starting point region for cutting along a line along which the substrate should be cut in the substrate inside by a predetermined distance from a laser light incident face of the substrate; and

grinding the substrate after the step of forming the starting point region for cutting such that the substrate attains a predetermined thickness.

Claim 21 (New): A substrate dividing method comprising the steps of:

irradiating a substrate with laser light while positioning a light-converging point within the substrate under a condition with a peak power density of at least 1×10^8 (W/cm²) at the light-converging point and a pulse width of 1 ns or less, so as to form a modified region including a refractive index change region which is a region with a changed refractive index within the substrate, and causing the modified region to form a starting point region for cutting along a line along which the substrate should be cut in the substrate inside by a predetermined distance from a laser light incident face of the substrate; and

grinding the substrate after the step of forming the starting point region for cutting such that the substrate attains a predetermined thickness.

Claim 22 (New): A substrate dividing method comprising the steps of:

irradiating a substrate which is made of a semiconductor material with laser light while positioning a light-converging point within the substrate under a condition with a peak power density of at least 1×10^8 (W/cm²) at the light-converging point and a pulse width of 1 μ s or less, so as to form a modified region within the substrate, and causing the modified region to form a

starting point region for cutting along a line along which the substrate should be cut in the substrate inside by a predetermined distance from a laser light incident face of the substrate; and grinding the substrate after the step of forming the starting point region for cutting such that the substrate attains a predetermined thickness.

Claim 23 (New): A substrate dividing method comprising the steps of:

irradiating a substrate which is made of a piezoelectric material with laser light while positioning a light-converging point within the substrate under a condition with a peak power density of at least 1×10^8 (W/cm²) at the light-converging point and a pulse width of 1 μ s or less, so as to form a modified region with the substrate, and causing the modified region to form a starting point region for cutting along a line along which the substrate should be cut in the substrate inside by a predetermined distance from a laser light incident face of the substrate; and grinding the substrate after the step of forming the starting point region for cutting such that the substrate attains a predetermined thickness.

Claim 24 (New): A substrate dividing method comprising the steps of:

irradiating a substrate which is made of a semiconductor material with laser light while positioning a light-converging point within the substrate, so as to form a molten processed region within the substrate, and causing the molten processed region to form a starting point region for cutting along a line along which the substrate should be cut in the substrate inside by a predetermined distance from a laser light incident face of the substrate; and

grinding the substrate after the step of forming the starting point region for cutting such that the substrate attains a predetermined thickness.